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Testimony on

***Harnessing American Resources to Create Jobs and
Address Rising Gasoline Prices:
Families and Cost-of-Life Impacts***

Committee on Natural Resources
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Chairman Hastings, Ranking Member Markey and members of the Committee on Natural Resources, I want thank you for the opportunity to testify on such an important topic. The rapid rise in gasoline prices has become a severe burden on U.S. consumers and is harming the economic recovery.

We bring a long historical perspective on developments in petroleum markets. The Energy Policy Research Foundation, Inc. (EPRINC), formerly named PIRINC, was incorporated in 1944 and is a not-for-profit organization that studies energy economics with special emphasis on petroleum and the downstream product markets. EPRINC researches and publishes reports on all aspects of the petroleum industry which are made available free of charge to interested organizations and individuals. It is known internationally for providing objective analysis of energy issues.

My testimony today includes an assessment of why gasoline prices have risen so dramatically over the last year and how we might address this problem to both benefit American consumers and expand the national economy.

The current run up in gasoline prices began because of developments in the refined product market. A combination of fierce competition from low cost gasoline imports, high acquisition costs for foreign crude oil, and rising regulatory costs have made it impossible for some refiners in the Northeast to continue

operations. In July 2011 Sunoco announced it was closing its facilities in South Philadelphia and Marcus Hook, shortly thereafter ConocoPhillips announced it was closing down its Trainer operations on the Delaware River, and then in early January of this year Hess announced it was shuttering its 350,000 barrel/day refinery in the Virgin Islands. There was also an unscheduled shut down of the Hess refinery in Port Reading.

These developments contributed to an initial increase in gasoline prices of 20-25 cents/gallon because more costly replacement supplies would now have to be brought in from foreign refineries. Of course, these supplies could be sourced from U.S. refiners in the Gulf of Mexico, but the availability of Jones Act tankers to move the supply into the Northeast are both highly limited and costly. The Colonial Pipeline system which moves product from the Gulf Coast into the Northeast has announced that it is proceeding with an expansion of capacity but this will take time.

On the demand side, we have had a brutally cold winter in Europe, which substantially increased fuel oil demand. Petroleum use in Japan is up 330,000 barrels/day over the last year to make up for 52 nuclear reactors that are now offline undergoing stress tests in response to Japanese public opposition to nuclear power. World economic growth is showing some signs of life leading to expectations of rising demand for petroleum. Add all of this to a falling dollar, which makes U.S. imports more expensive, and you have a perfect storm for a spike in gasoline prices.

Populist calls that we can reduce gasoline prices by restricting or taxing exports of petroleum products will only drive fuel prices higher, U.S. domestic output of transportation fuels meets 92% of domestic demand with the remainder filled largely by imports of gasoline into the Northeast. Banning exports of all petroleum products or even restricting the ban to transportation fuels would only raise the cost of gasoline as products would have to move longer distances to reach consumers. Moreover, when refiners produce gasoline they also produce by-products, some of which only have value in foreign markets, such as high sulfur heavy fuel oil. If a U.S. ban on refined product exports prohibits refiners from selling their entire product slate, production will decline and prices will rise. This is hardly an effective strategy for lowering gasoline prices. Finally, if we exclude

Canadian sales to the U.S., we are still fully integrated into the world oil market with net imports of petroleum at 5.5 million barrels/day. We cannot isolate the U.S. from shifts in world oil prices.

The problems in refined product markets are short-term and as world gasoline supplies are expanded much of the initial cost of the refinery closures will fade. We can only address the long-term problem of high gasoline prices by addressing the high cost of crude oil. Long-term data from the U.S. Energy Information Administration show that approximately 85 percent of the cost of gasoline is determined by crude oil prices and fuel taxes. Yes, as discussed earlier, gasoline prices can move up and down from short term disruptions and surpluses in product markets. However, if you want lower gasoline prices, you need lower crude oil prices.

So why are crude prices so high today? Unfortunately, our losses in refinery capacity were followed by turmoil in world oil markets. Despite recovery in Libyan production, the world oil market has lost over 700,000 barrels/day from turmoil in Sudan, Syria, and Yemen over the last 12 months. Nigeria is in a perpetual crisis. Iran is threatening to close the Strait of Hormuz and sanctions on Iranian crude oil may further reduce world oil supplies. Prices are rising as buyers and sellers in the market react not only to current conditions, but to expectations that future supplies might be curtailed. These developments alone are adding another 25 cents/gallon to gasoline prices. In fact, without rising U.S. production gasoline prices would even be higher.

So what about drilling our way out of this problem? Our organization has been evaluating the domestic potential for so-called unconventional domestic oil production through a study effort we call “***Building Blocks of the North American Petroleum Renaissance.***” Based on well performance, drilling permits, break-even costs, well completion rates, technology progression, and availability of drilling rigs in only four plays in North Dakota, Colorado and Texas, American drillers are now on track to lift U.S. onshore domestic crude oil and natural gas liquids production by more than 2 million barrels/day before 2017. These estimates are likely conservative. Raymond James, the investment firm, using a broader set of prospects sees U.S. production rising by 3 million barrels a day by the end of 2015. Both our estimate and those of Raymond James do not include

newer onshore opportunities which are in the initial stages of evaluation. All of these opportunities are largely on private land and do not account for resources that might exist on public lands in the western U.S., Alaska, and throughout the U.S. offshore provinces, many of which remain off limits to petroleum development.

At the request of Secretary of Energy, Steven Chu, the National Petroleum Council (an outside advisory panel of industry, energy, and academic experts that report directly to the Secretary) concluded in late 2011 that with greater access to public lands, continued improvement in technology, and a reasonable regulatory regime, North American crude and natural gas liquids production could rise by 10-12 million barrels/day over the next 20 years.

Viewing this as a North American opportunity is critical. The growing supplies of U.S. low cost natural gas can help fuel the energy intensive requirements of Canadian oil sands production. Moreover, the large volumes of natural gas liquids from North Dakota oil and gas production may offer opportunities for blend stock with Canadian oil sands so the production can easily flow through a pipeline. The National Energy Board, an official Canadian government entity, which is not known for wild-eyed forecasts, has publicly stated that Canada can raise sustainable petroleum output by at least 3 million barrels/day in the next 20 years, if they can find a market for the output. The Canadian Association of Petroleum Producers is now forecasting production rising to 3.7 million barrels/day by 2025.

So here's a plan to drill our way out of this problem. Immediately approve the Keystone XL pipeline and send a signal to Canadian and U.S. producers that removes uncertainty over new transportation infrastructure to move both domestic and Canadian crude oil to coastal refiners. Chokepoints in domestic crude transportation infrastructure are now so severe that they are threatening North American petroleum production. We should announce an aggressive program to expand leasing for oil and gas on federal lands in the west, accelerate the offshore leasing program, and open up the vast opportunities in Alaska. At the same time, we should implement a genuine regulatory reform effort so we can expand oil and gas output and realize the vast value added opportunities brought to the U.S. by this new production. Some might consider this a radical approach, but it is fully in line with the President's own jobs council recommendations. Not only will this

help push the world oil market to a long term lower price path, it is likely to provide relief for American consumers before the production comes online as markets routinely react to expectations on future production.

I cannot emphasize enough how important it is to send a positive signal to world oil markets and OPEC. Policy initiatives such as the punitive “use it or lose it” proposal for federal oil and gas leaseholders, the endless delays in opening up new federal lands to oil and gas development, the continuing avalanche of new regulations, and the decision to kill (or at least delay) a permit for the Keystone XL pipeline all tell world oil markets that the Administration is unwilling to embrace the American petroleum renaissance. We are no longer arguing over a few hundred thousand barrels/day of new production but the opportunity for a transformation of the American economy. We now know the opportunity is enormous and so the cost of failing to embrace this opportunity imposes severe and long-term costs on the national economy and will reinforce expectations supporting higher oil prices.

Think for a moment about the vast opportunity in economic growth driven by a large array of new opportunities for high value added production. In 2009, a bad year for the American refining industry, the added value of all production of refined products alone exceeded \$250 billion according to Price Waterhouse Cooper. Add to this a world where growing output of domestic oil and gas is rapidly opening up new opportunities for the entire range of value added processing from refined products, to petrochemicals, to the transformation of natural gas to LNG, and large scale infrastructure for the transportation of petroleum production, and we can quickly move to the point where the U.S. is producing year in and year out well over \$500 billion in added economic value from a resource that was in decline just a few years ago. The opportunity is so great it can do much more than promote higher rates of economic and employment growth; it can alter the strategic outlook for the United States.

Finally, a common argument for any program to accelerate domestic development is that it is too far in the future to us any good now. But history tells a different story. In world oil markets, crude oil prices are determined not only by what is happening to current production, but also by the expectations that buyers and sellers have about future production. In the 1973-74 Arab oil embargo, for

example, oil prices quadrupled overnight even though little oil was lost from the market. Instead, buyers and sellers expected that future growth in oil production in the region would be substantially curtailed as a result of the likely nationalization of Persian Gulf oil fields.

Crude oil prices shot up at the outset of the 1979 Iranian Revolution, and again when war broke out between Iran and Iraq the following year, although in neither case did the amount of oil supplied to the market decline by much. But buyers and sellers understood that expectations about the growth of new production from both Iran and Iraq were shifting downward. Unrest in Libya, combined with expectations of continued turmoil throughout the Middle East, is certainly contributing to the current run-up in oil prices.

Nevertheless, many government officials deny that supporting higher production from Canadian oil sands, more access to the petroleum resources in Alaska, expanding oil and gas leasing in new offshore and onshore provinces on federally owned lands, and deepwater drilling in the Gulf of Mexico make a difference. We are told that these new supplies will reach the market too far in the future to help us with prices today, or the amount will be too small to matter. This is too simplified a view of the oil market.

If the President makes it clear that he is prepared to embrace the North American petroleum renaissance he will send a positive signal to the world oil market on future supply. Embracing the North American petroleum renaissance may even yield some pleasant surprises, such as the recent experience with shale gas revolution. New discoveries of shale gas, and breakthroughs in the technology of extraction, have pushed down natural gas prices below \$3 per thousand cubic feet (mcf) in recent months. But even at prices between \$4-\$6/mcf American consumers have saved over \$50 billion a year, according to data from the federal Energy Information Agency.

I will leave you with some important statistics. Every time we replace foreign imports with domestic production the national economy saves at least \$50/barrel from the lower cost of domestic production. This amounts to a savings of \$100 billion per year or a present value savings of \$1 trillion on only the volume of water borne imports of 5.5 million barrels/day. But there is more. We are also

likely to lower the long run world price of crude from the North American petroleum renaissance. If we alter the long-term price of crude oil by only \$20 a barrel—let's say to \$80 instead of \$100—the savings in our import bill alone would be \$100 billion per year. This would immediately foster economic growth throughout the national economy, not just the petroleum sector. This means more jobs, a better return on capital, higher corporate and personal income for federal and state governments, and rising revenues to the U.S. Treasury from bonus bids and royalties from petroleum development.